

Application Serial No. 9/445,033
Reply to Office Action of February 19, 2004

PATENT
Docket No. CU-2048

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-30 are pending in the present application before this amendment. Claims 9-12 are allowed. No claim has been amended in this Response for the reasons set forth below.

Claims 1-6, 8, 13-17, 22-23, 25, and 30 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Dube et al., "Signal Stability-Based Adaptive Routing (SSA) for Ad Hoc Mobile Networks" IEEE Personal Communications, vol. 4, no. 1, February 1997, pages 36-45.

The Office Action relies on Dube et al. to reject the claims of this application; however, the technology taught and disclosed in Dube et al. is already known to the Applicants and forms a part of the prior art for the reasons discussed below.

Dube et al. relates to a wireless network using a distributed adaptive routing protocol for finding and maintaining stable routes based on signal strength and location stability in an ad hoc network. However, Dube et al. discloses a system in which the entire route to the destination station is determined. This is described under the heading "An Example" on page 38, column 2 of Dube et al. On page 39, column 1, paragraph 2, it is stated that error messages are sent back to the origination station if any of the intermediate stations are unable to send the message on to the destination station. In these circumstances, the originating station in the Dube et al. system will initiate a new route search and will send an erase message to erase the invalid route.

A

Application Serial No. 9/445,033
Reply to Office Action of February 19, 2004

PATENT
Docket No. CU-2048

This new route search and the erasing of the old route is further described on page 41, column 1, paragraph 2 and in the paragraphs headed by the title "Route Maintenance".

In contrast, the presently claimed invention makes use of "gradients" and not routes to define multiple potential routes for transmitting and receiving data, as opposed to one pre-selected route as described in Dube et al. This "gradient system" of the presently claimed invention allows each station to make an opportunistic decision, at the time of making a transmission, as to which neighbouring station to use to transmit data to a destination station. This "gradient system" is described on pages 29 to 39, and in particular on page 35 paragraph 3 to page 36 paragraph 2 of the Specification.

This aspect of the present invention is emphasized in Claim 1 by the phrase --**opportunistically selected intermediate station**-- as well as by the phrase --**at intervals**-- used in the steps b) and c), which phrases have been incorporated by various amendments filed to the claims during the prosecution of the present application. This aspect of the claimed invention, inter alia, is not taught or suggested by Dube et al., whether it is taken individually or combined with other cited references.

It should be clear from the above that according to the presently claimed invention, the selection of a station to transmit or receive data in a network occurs, at intervals, at each station, whether the station is an originating station or an intermediate station.

Also, such selections are made **opportunistically** as the method

A

Application Serial No. 9/445,033
Reply to Office Action of February 19, 2004

PATENT
Docket No. CU-2048

"dynamically sheds or distributes the traffic load amongst neighbouring stations based on how often the stations are heard." It is important to emphasise that the route from the originating station to the destination is not at any stage fixed, and that each intermediate station makes a fresh decision as to which further station to transmit to. This opportunistic selection at intervals of the next station to transmit data to is integral to the invention and is not at all taught or suggested by Dube et al. or in combination with other cited references.

In light of the above, the Applicants respectfully submit that the Office Action apparently has failed to grasp the essence of the presently claimed invention and the substantial difference between the presently claimed invention and the prior art, such as Dube et al.

For the reasons set forth above, Applicants respectfully submit that Claims 1-8 and 13-30, pending in this application are in condition for allowance over the cited references. The Applicants respectfully acknowledge the allowance of Claims 9-12 with thanks. This amendment is considered to be responsive to all points raised in the Office Action. Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter. Should

A


Application Serial No. 9/445,033
Reply to Office Action of February 19, 2004

PATENT
Docket No. CU-2048

the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

Dated: April 8, 2004



W. William Park, Reg. No. 55,523
Ladas & Parry
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300

A